

Notice of Allowability

Application No.

10/768,754

Examiner

Fred Ferris

Applicant(s)

STOICA ET AL.

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 13 October 2006.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


FRED FERRIS
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100

DETAILED ACTION

1. *Claims 1-20 have been presented for examination based on applicant's amendment and supporting arguments filed 13 October 2006. Claims 1-20 have now been allowed over the prior art of record.*

Response to Arguments

2. *Applicant's arguments filed 21 August 2006 have been fully considered and found to be persuasive.*

Regarding applicants' response to drawing objections: *The examiner withdraws the objection to drawings in view of applicants' amendment to the claims and supporting arguments filed 13 October 2006.*

Regarding applicants' response to Double Patenting rejection: *The examiner withdraws the double patenting rejection in view of applicants terminal disclaimer filed 13 October 2006.*

Regarding applicants' response to 112(2) rejections: *The examiner withdraws the 112(2) rejection of claims 12, 14, and 18 in view of applicants' clarifying amendment to the claims and supporting arguments filed 13 October 2006.*

Regarding applicants' response to 103(a) rejection: *The examiner withdraws the 103(a) rejection in view of applicants' amendment to the claims, supporting arguments, and 1.131 declaration filed 13 October 2006. In this instance, applicants' declaration appears to meet the requirements of MPEP 715.07 by providing evidence of reduction to practice and diligence as demonstrated on pages 18-24 (in particular pp. 19-21, 23,*

24, and Fig. 2), and is therefore found to be comprehensive by the examiner. The declaration filed on 13 October 2006 under 37 CFR 1.131 is therefore sufficient to overcome the Levi/Layzell reference.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the specification delete the phrase "Application Serial No. 09/395,235" and insert the phrase 6,728,666 at page 1, line 22. Lines 21-22 of page 1 should now read as "U.S. Patent 6,728,666, filed....".

Allowable Subject Matter

4. Claims 1-20 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance:

Applicants are disclosing an evolvable circuit consisting of transistors comprising a first and second power terminals and a control terminal where reconfigurable (on/off) switches are used to form individual terminal-to-terminal connections among the transistors. Conceptually, these elements have been disclosed in the prior art of record.

While these elements are individually disclosed in the prior art, the prior art of record does not meet the conditions as suggested in MPEP section 2132, namely:

*"The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an **ipsissimis verbis** test, i.e., identity of terminology is not required. **In re Bond**, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990)."*

In particular, the prior art of record does not disclose the specific arrangement of the elements noted above in combination with the elements required by claims 1, 10, 13, and 16. These elements are; claim 1: reconfigurable switches that when closed form a series connected succession of transistors having first and second power terminal of adjacent (other) transistor through single switch, claim 10: all terminal-to-terminal connection among transistors are provided by respective ones of the reconfigurable switches with the exception of connection through voltages sources, claim 13: number of reconfigurable switches exceeds three and the number of reconfigurable switches is within an order of magnitude of the number of transistor terminals , and claim 16: two mode circuit including a configuration mode where one transistor is isolatable for another adjacent transistor and further defining and instant topology of the circuit. (See: Fig. 2, for example)

The closest prior art uncovered during examination teaches certain elements of the claimed invention as follows:

"A New Research Tool for Intrinsic Hardware Evolution", P. Layzell: teaches the technique of providing a switch array (cross point) in conjunction with a plurality of transistors such that the cross point (re-configurable) switch array allows the connection of any transistor terminal to any other transistor terminal, any transistor can easily be coupled between the power source and sink terminals. Layzell further discloses that the control terminals of a first and second transistor can be coupled between either layers, other power terminals, other control terminals, arranged as bypass switches, or together. However, Layzell fails to explicitly disclose these elements in combination with the elements of independent claims 1, 10, 13, and 16 noted above.

The features noted above render the claimed invention non-obvious over the prior art of record. Dependent claims 2-9, 11-12, 14-15, and 17-20 are deemed allowable as depending directly or indirectly from independent claims 1, 10, 13, and 16 respectively.

It is further noted that the examiner has given patentable weight to the preamble of independent claims 1, 10, 13, and 16 since, in this case, the preamble limits the body of the claims and the language of a preamble is necessary to give meaning to the claim.

MPEP 2163 recites the following:

"The examiner should evaluate each claim to determine if sufficient structures, acts, or functions are recited to make clear the scope and meaning of the claim, including the weight to be given the preamble. See, e.g., Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995) ('[A] claim preamble has the import that the claim as a whole suggests for it.'); *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc., 868 F.2d 1251, 1257, 9USPQ2d 1962, 1966 (Fed. Cir. 1989) (The determination of whether preamble recitations are structural limitations can be resolved only on review of the entirety of the application "to gain an understanding of what the inventors actually invented and intended to encompass by the claim.')."*

In this instance, the preamble recitation of an "evolvable circuit" and "circuit functioning in two modes" (modifiable configuration), as understood from applicants'

specification (pp. 10-13, Fig. 1, 2, pp. 18-21, Figs. 3, 4), is further defined and limited in the body of the claim as consisting of transistors comprising a first and second power terminals and a control terminal, reconfigurable switches providing interruptable terminal-to-terminal connections, and providing terminal reconfiguration as noted above. While such arrangements of circuit elements could have been construed by a skilled artisan for solving certain circuit switching problems, (see: Sourgen Fig. 3, for example) the examiner finds no specific teaching other than for the purposes disclosed by applicants. (i.e. an evolvable circuit and/or circuit functioning in two mode (modifiable configuration))

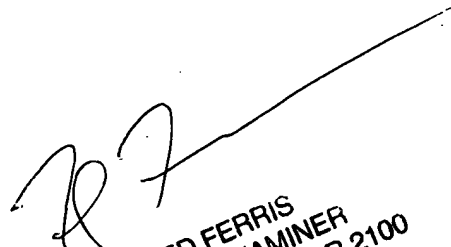
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 571-272-3778 and whose normal working hours are 8:30am to 5:00pm Monday to Friday. Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 571-272-3700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached at 571-272-2279. The Official Fax Number is: (571) 273 8300.*

Art Unit: 2128

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